IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A method for determining dynamic movement parameters of a material object in sports competitions or training, using recording the object motion trajectory in an infrared spectral range, characterized by recording trajectories of infrared footmarks resulting from the interaction of the object with surrounding objects or surrounding environment; recording and analyzing the dynamic of changes of infrared radiation intensity on different parts of the trajectory of the object motion and calculating the object movement parameters therefrom.

2. (Original) The method according to claim 1, characterized by further recording trajectories of infrared footmarks in different spectral ranges.

3. (Original) The method according to claim 1, characterized by further recording trajectories of shadows resulting from the interaction of the object with concentrated or distributed external infrared sources.

4. (Original) The method according to claim 1, characterized in that in big tennis the area of the ball contact with the court and the time moment of the ball impingement with the court surface are determined using the break of trajectories of infrared footmarks.

5. (Original) An apparatus for determining dynamic movement parameters of a material object in sports competitions or training, comprising at least one infrared camera and a computer, characterized by further comprising a mechanical oscillation receiver connected to the infrared camera.

6. (Original) The apparatus according to claim 5, characterized by further comprising an external light source.

7. (Currently amended) The apparatus according to claim 5 ~~or 6~~, characterized in that the external light source is modulated by frequency or infrared radiation wavelengths and is synchronized with the infrared cameras.

8. (Original) The apparatus according to claim 5, characterized in that the infrared cameras have a controlled time of fixing image.

9. (Original) The apparatus according to claim 5, characterized in that at least one infrared camera comprises an appliance enabling its rotation and movement synchronized with the mechanical oscillation receiver.

10. (Original) The apparatus according to claim 5, characterized in that at least one infrared camera comprises a system of optical filters for modifying the spectral range of sensitivity of the infrared camera.

11. (Currently amended) A method of evaluating skill and development potential of sportsmen, comprising using a method ~~as set forth in any one of claims 1 to 4~~ for determining dynamic movement parameters of a material object in sports competitions or training, using recording the object motion trajectory in an infrared spectral range, characterized by recording trajectories of infrared footmarks resulting from the interaction of the object with surrounding objects or surrounding environment; recording and analyzing the dynamic of changes of infrared radiation intensity on different parts of the trajectory of the object motion and calculating the object movement parameters therefrom and ~~an~~ the apparatus as set forth in ~~any one of claims 5 to 10~~ claim 5.